



Michael F. Easley, Governor

William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director  
Division of Water Quality

November 22, 2005

Dr. Gregory J. Thorpe, Ph.D  
Project Development and Environmental Analysis Branch  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, NC 27699-1548

**RE: Certification Pursuant to Section 401 of the Federal Clean Water Act, Modification to Back Creek Stream Mitigation Site, TIP No. R-967CA, State Project No. 6.689002T, WQC Project No. 04-0500, Mecklenburg County**

Dear Dr. Thorpe:

Attached is a modification to Certification No. 04-0500. The Division of Water Quality (DWQ) originally waived the right to require a water quality certification on June 3, 2004, as final action on the application was not taken within 60 days of receipt. If additional impacts are proposed, the waiver is no longer valid and a 401 Water Quality Certification is required. The modification request proposes additional impacts and is being issued a 401 Water Quality Certification (WQC #3495) in compliance with the request.

The attached modification authorizes permanent impacts to 80 linear feet (lf) of stream bank for grading, construction of a bankfull bench at Station 35+90 to 36+20 and debris removal from the stream at Station 36+50 as described in your permit modification application received by the Division of Water Quality (DWQ) on November 18, 2005. This modification is applicable only to the additional proposed activities.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, **please telephone Polly Lespinasse in the Mooresville Regional Office at 704-663-1699.**

Sincerely,

*Richard M. Bridgeman*

for Alan W. Klimek, P.E.

#### Attachments

cc: Steve Lund, USACE Asheville Field Office  
Rob Ridings, DWQ Wetlands Unit  
Bill Gilmore, NC Ecosystem Enhancement Program  
Jamie Lancaster, NCDOT PDEA  
Leilani Paugh, NCDOT PDEA  
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## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

This Certification is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500. The attached modification authorizes grading, construction of a bankfull bench at Station 35+90 to 36+20 and debris removal from the stream at Station 36+50. This modification is applicable only to the additional proposed activities.

Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H.0506(h)(6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) those required by Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This Certification shall expire three (3) years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding US Army Corps of Engineers (USACE) Permit, whichever is sooner.

### Conditions of Certification:

1. The meander bend grading and bankfull bench construction shall be conducted as described in the modification request. Existing stream dimensions (including pattern and profile) are to be maintained above and below the location of the meander bend grading area and bankfull bench construction.
2. Tree removal shall be minimized to the greatest extent possible, with the exception of the removal of one (1) tree and one (1) stump at Station 35+00 and the removal of two (2) trees at Station 34+70 and 34+90 (the stumps at these stations are to remain to provide bank stability).
3. Erosion and sediment control practices must utilize Best Management Practices (BMP) and be in full compliance with all specifications governing the proper design, installation, and operation and maintenance of such BMP in order to protect surface water standards:
  - a. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow pit sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
  - b. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - c. The reclamation measures and implementation of these measures must be in accordance with the requirements of the Sedimentation Pollution Control Act.
4. Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within 30 days after the Division of Land Resources has released the project.
5. The presence of equipment in the channel must be minimized. Under no circumstances must rock, sand or other materials be dredged from the wetted stream channel.
6. Heavy equipment must be operated from the banks rather than in the stream channel, when possible, in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the stream.

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7. Temporary dewatering sites must be restored to pre-existing conditions unless more natural geomorphic conditions can be provided.
8. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
9. All work shall be performed during low or normal flow conditions.
10. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
11. The North Carolina Department of Transportation (NCDOT) and its contractors and/or agents shall not excavate, fill or perform mechanized land clearing at any time in the construction or maintenance of this project within waters and/or wetlands, except as authorized by this Certification, or any modification to this Certification (e.g., no work shall occur outside of the footprint of the plans provided). In addition, there shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this Certification without appropriate modification. If this occurs, compensatory mitigation may be required since it is a direct impact from road construction activities.
12. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify the DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.
13. Continuing Compliance. NCDOT shall conduct its activities in a manner so as not to contravene any state water quality standard [including any requirements for compliance with section 303(d) of the Clean Water Act] and any other appropriate requirements of state and federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that state or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before codifying the certification, DWQ shall notify NCDOT and the USACE, provide public notice in accordance with 15A NCAC 2H.0503, and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to NCDOT in writing, shall be provided to the USACE for reference in any permit issued pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project.

Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This certification and its conditions are final and binding unless you ask for a hearing.

This, the 22nd day of November 2005

DIVISION OF WATER QUALITY

*Richard M. Bridgeman*

for Alan W. Klimek, P.E.  
Director

Modification to WQC No. 04-0500

**WQC #3495****STREAM RESTORATION, ENHANCEMENT AND STABILIZATION AND WETLAND AND RIPARIAN RESTORATION AND CREATION ACTIVITIES CERTIFICATION**

GENERAL CERTIFICATION FOR STREAM RESTORATION, ENHANCEMENT AND STABILIZATION PROJECTS AND WETLAND AND RIPARIAN RESTORATION AND CREATION ACTIVITIES INCLUDING THOSE ELIGIBLE FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBERS 13 (BANK STABILIZATION) AND 27 (WETLAND AND RIPARIAN RESTORATION AND CREATION) AND REGIONAL PERMIT 197800080 (CONSTRUCTION AND MAINTENANCE OF BULKHEADS)

This General Certification is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality Regulations in 15A NCAC 2H .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters as described in 33 CFR 330 Appendix A (B) (13) and (27) of the Corps of Engineers regulations (i.e. Nationwide Permit Numbers 13 and 27) and Regional Permit 197800080. The category of activities shall include stream bank stabilization or stream restoration activity as long as impacts to waters or significant wetlands are minimized. This Certification replaces Water Quality Certification (WQC) Number 3389 issued March 2003. This WQC is rescinded when the Corps of Engineers reauthorize Nationwide Permits 13 or 27 or Regional Permit 197800080 or when deemed appropriate by the Director of the Division of Water Quality (DWQ).

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions set forth.

**Conditions of Certification:**

1. Wetland and/or riparian area restoration and creation projects which are for compensatory mitigation or compensatory mitigation credit (and not including projects that only involve stream restoration or enhancement work described in condition nos. 2 and 3 below) that are proposed under this General Certification require written application to and approval from the Division of Water Quality. All applications for written DWQ approval will be reviewed and a response will be prepared within 30 days of stamped receipt of the application in the Division of Water Quality's Central Office in Raleigh. This 30-day period does not include time spent by the application or DWQ's response within US Postal Service or North Carolina's Mail Service Center mail systems;

Wetland and riparian area restoration and creation projects (not including projects that involve work in or impacts to streams) which are not for compensatory mitigation or compensatory mitigation credit proposed under this General Certification do not require written application to and approval from the Division of Water Quality. In these cases, the applicant is required to notify the Division in writing with three copies of project specifications before the impact occurs. If the Division determines that the project would not result in an ecologically viable wetland and riparian area, then the Division shall prepare a response to notify the applicant in writing within 30 days of DWQ's receipt of the notification. In such cases, the applicant will be required to submit a formal application and pay of the appropriate fee, and DWQ will be required to process the application through normal procedures;

2. Proposed stream restoration projects (as defined and limited below), that do not disturb wetlands and that are not being conducted for compensatory mitigation or compensatory mitigation credit do not require written application to and approval

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from the Division of Water Quality, and, therefore, do not require payment of an application fee to the Division of Water Quality. Projects that are intended for compensatory mitigation or compensatory mitigation credit, that are intended to resolve a violation, or that are in association with a development project shall require an application, fee, and written concurrence from the Division of Water Quality.

Stream restoration is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and floodprone areas to its natural or referenced, stable conditions considering recent and future watershed conditions. This biological and chemical integrity, including transport of water and sediment is produced by the stream's watershed in order to achieve dynamic equilibrium. The applicant is required to notify the Division in writing with three copies of detailed restoration plans and specifications before the impact occurs. If the Division determines that the project does not meet the above definition of stream restoration, then the Division shall notify the applicant in writing within 30 days of receipt of the application. In such cases, the applicant will be required to submit a formal application and pay of the appropriate fee, and DWQ will be required to process the application through normal procedures;

3. Stream enhancement projects (as defined and limited below), that do not disturb wetlands and that are not being conducted for compensatory mitigation or compensatory mitigation credit and do not include any stream channel relocation, do not require written application to and approval from the Division of Water Quality, and, therefore, do not require payment of an application fee to the Division of Water Quality. Projects that are intended for compensatory mitigation or compensatory mitigation credit, that are intended to resolve a violation, or that are in association with a development project shall require an application, fee, and written concurrence from the Division of Water Quality.
4. Stream enhancement is defined as the process of implementing stream rehabilitation practices in order to improve water quality and/or ecological function. These practices must only be conducted on streams that are not experiencing severe aggradation or erosion. Stream enhancement does not include the relocation of the stream channel. Stream enhancement bank stabilization techniques include the use of woody vegetation as the primary means of long term stability, and "soft" techniques such as root wads that encourage the establishment of dense woody vegetation. Stream enhancement techniques do not typically include the use of stream bank or bed hardening techniques such as rip-rap or other rock, gabion, block or concrete structures. However, enhancement activities may also include the placement of in stream habitat or grade control structures such as cross vanes, j-hook vanes, and wing deflectors that do not affect the overall dimension, pattern, or profile of a stable stream.

The applicant is required to notify the Division in writing with three copies of detailed enhancement plans and specifications before the impact occurs if the stream enhancement project disturbs greater than 500 feet of stream bank or if the project proposes the use of in stream structures. If the Division determines that the project does not meet the above definition of stream enhancement, then the Division shall notify the applicant in writing with an explanation within 30 days of receipt of the notification to require application and payment of the appropriate fee;

5. Stream stabilization projects that include the use of any structure or fill in the existing stream bed or disturb greater than 500 feet of stream bank that are proposed under this General Certification require written application to and approval from the Division of Water Quality.

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Stream stabilization is defined as the in-place stabilization of an eroding stream bank using measures that consist primarily of "hard" engineering, such as but not limited to concrete lining, rip rap or other rock, and gabions. The use of "hard" engineering will not be considered as stream restoration or enhancement;

6. Impacts to any stream length in the Neuse, Tar-Pamlico or Randleman River Basins (or any other major river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence for this Certification from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse and Tar-Pamlico River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;
7. In order for the above conditions to be valid, any plans not requiring written concurrence to use this Certification must be built according to the plans provided to the Division of Water Quality. If written concurrence is required, then the project must be built and maintained according to the plans approved by the written concurrence and Certification from the Division of Water Quality;
8. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Erosion and Sediment Control Planning and Design Manual" or "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources at the DENR Regional and Central Offices) shall be designed, installed and maintained properly to assure compliance with the appropriate turbidity water quality standard (50 NTUs in streams and rivers not designated as trout waters by DWQ; 25 NTUs in all saltwater classes and all lakes and reservoirs; 10 NTUs in DWQ-classified trout waters);
9. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored after the Division of Land Resources or delegated program has released the project;
10. Any rip-rap shall be of such a size and density so as not to be able to be carried off by wave or current action and consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. If rip-rap is to be installed within the streambed, the amount and location must be approved in writing by the Division of Land Resources and Division of Water Quality. However rock vanes, wing deflectors, and similar structures for grade control and bank protection are acceptable;
11. Measures shall be taken to prevent live or fresh concrete from coming into contact with freshwaters of the state until the concrete has hardened;
12. If an environmental document is required, this Certification is not valid until a Finding of No Significant Impact or Record of Decision is issued by the State Clearinghouse;

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13. Additional site-specific conditions may be added to projects which require written concurrence under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
14. Projects with any impacts to streams, wetlands, and/or waters that have received a Notice of Violation from the Division of Land Resources and/or the Division of Water Quality are required to submit a complete application and receive written concurrence to use this Certification regardless of the proposed impact amount to streams, wetlands, and waters;
15. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or the notification sent to DWQ;
16. Standard Erosion and Sediment Control Practices:

Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices:

- a. Erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. Design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
  - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - d. Reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
  - e. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
17. No Impacts Beyond those in Application

No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Pre-construction Notification. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

18. No Sediment and Erosion Control Measures in Wetlands

Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within six months of the date that the Division of Land Resources or locally delegated program has released the project.

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Non-compliance with or violation of the conditions herein set forth by a specific project shall result in revocation of this Certification for the project and may also result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for Individual Certification for any project in this category of activity if it is determined that the project is likely to have a significant adverse effect upon water quality including state or federally listed endangered or threatened aquatic species or degrade the waters so that existing uses of the wetland or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: 31 December 2004

DIVISION OF WATER QUALITY

By

Alan W. Klimek, P.E.

Director

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